

The documentation and process conversion measures necessary to comply with this revision shall be completed by 20 April 2004.

INCH-POUND

MIL-PRF-19500/624B
20 January 2004
SUPERSEDING
MIL-PRF-19500/624A
25 October 1997

* PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, DARLINGTON TRANSISTOR, NPN, SILICON, HIGH-POWER,
TYPE 2N7370 JAN, JANTX, JANTXV, AND JANS

This specification is approved for use by all Departments
and Agencies of the Department of Defense.

* The requirements for acquiring the product described herein shall consist of
this specification sheet and MIL-PRF-19500.

1. SCOPE

1.1 Scope. This specification covers the performance requirements for NPN silicon, high-power darlington transistor. Four levels of product assurance are provided as specified in MIL-PRF-19500.

1.2 Physical dimensions. See figure 1 (TO-254).

* 1.3 Maximum ratings. Unless otherwise specified, $T_A = +25^\circ\text{C}$.

| Type | P_T (1) $T_C = +25^\circ\text{C}$ | V_{CBO} | V_{CEO} | V_{EBO} | I_B | I_C | T_J and T_{STG} | $R_{\theta JC}$ (2) |
|--------|--|-------------|-------------|-------------|-------------|-------------|---------------------|------------------------|
| | <u>W</u> | <u>V dc</u> | <u>V dc</u> | <u>V dc</u> | <u>A dc</u> | <u>A dc</u> | <u>°C</u> | <u>°C/W</u> |
| 2N7370 | 100 | 100 | 100 | 5.0 | 0.2 | 12 | -65 to +200 | 1.5 |

(1) See figure 2 for temperature-power derating curves.

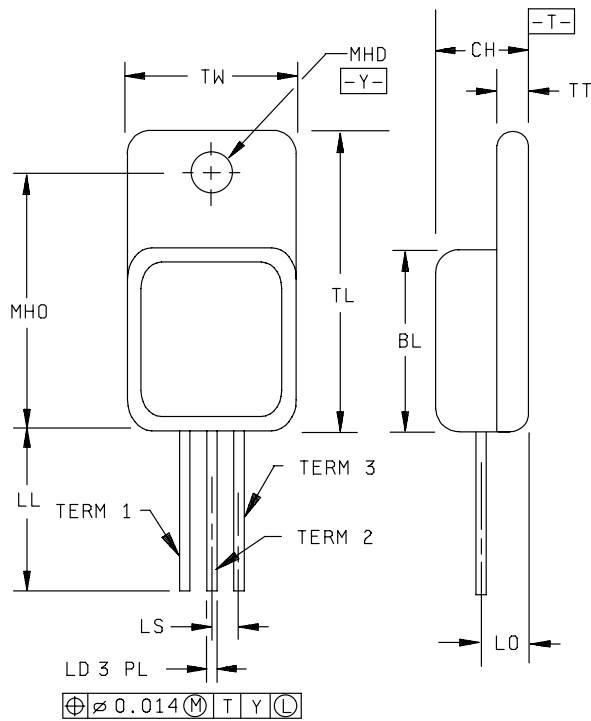
(2) See figure 3, transient thermal impedance graph.

* 1.4 Primary electrical characteristics.

| Limit | h_{FE1} (1) $V_{CE} = 3.0 \text{ V dc}$ $I_C = 6.0 \text{ A dc}$ | $V_{BE(SAT)1}$ (1) $I_C = 12.0 \text{ A dc}$ $I_B = 120 \text{ mA dc}$ | $V_{CE(SAT)1}$ (1) $I_C = 12.0 \text{ A dc}$ $I_B = 120 \text{ mA dc}$ | $ h_{re} $ $V_{CE} = 3.0 \text{ V dc}$ $I_C = 5.0 \text{ A dc}$ $f = 1 \text{ MHz}$ |
|-------|--|--|--|--|
| | | <u>V dc</u> | <u>V dc</u> | |
| Min | 1,000 | | | 10 |
| Max | 18,000 | 4.0 | 3.0 | 250 |

(1) Pulsed (see 4.5.1).

* Comments, suggestions, or questions on this document should be addressed to Defense Supply Center, Columbus, ATTN: DSCC-VAC, P.O. Box 3990, Columbus, OH 43216-5000, or emailed to Semiconductor@dsc.dla.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at www.dodssp.daps.mil.



| Ltr | Dimensions | | | |
|--------|------------|------|-------------|-------|
| | Inches | | Millimeters | |
| | Min | Max | Min | Max |
| BL | .535 | .545 | 13.59 | 13.84 |
| CH | .249 | .260 | 6.32 | 6.60 |
| LD | .035 | .045 | 0.89 | 1.14 |
| LL | .530 | .550 | 13.46 | 13.97 |
| LO | .150 BSC | | 3.81 BSC | |
| LS | .150 BSC | | 3.81 BSC | |
| MHD | .139 | .149 | 3.53 | 3.78 |
| MHO | .665 | .685 | 16.89 | 17.40 |
| TL | .790 | .800 | 20.07 | 20.32 |
| TT | .040 | .050 | 1.02 | 1.27 |
| TW | .535 | .545 | 13.59 | 13.84 |
| Term 1 | Base | | | |
| Term 2 | Collector | | | |
| Term 3 | Emitter | | | |

NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. All terminals are isolated from case.

* FIGURE 1. Dimensions and configuration (T0-254AA).

2. APPLICABLE DOCUMENTS

* 2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this specification, whether or not they are listed.

2.2 Government documents.

* 2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

* DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-PRF-19500 - Semiconductor Devices, General Specification for.

* DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-750 - Test Methods for Semiconductor Devices.

* (Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or www.dodssp.dap.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

* 3.1 General. The individual item requirements shall be as specified in MIL-PRF-19500 and as modified herein.

* 3.2 Qualification. Devices furnished under this specification shall be products that are authorized by the qualifying activity for listing on the applicable qualified products list before contract award (see 4.2 and 6.3).

3.3 Abbreviations, symbols, and definitions. Abbreviations, symbols, and definitions used herein shall be as specified in MIL-PRF-19500.

* 3.4 Interface and physical dimensions. The interface and physical dimensions shall be as specified in MIL-PRF-19500 and on figure 1 herein. Methods used for electrical isolation of the terminal feedthroughs shall employ materials that contain a minimum of 90 percent ceramic Al_2O_3 or equivalent. Examples of such construction techniques are metallized ceramic eyelets or ceramic walled packages.

3.4.1 Lead finish. Lead finish shall be solderable in accordance with MIL-STD-750, MIL-PRF-19500, and herein. Where a choice of lead finish or formation is desired, it shall be specified in the acquisition requirements (see 6.2). When lead formation is performed, as a minimum, the vendor shall perform 100 percent hermetic seal in accordance with appendix E, table IV, screen 14, of MIL-PRF-19500.

* 3.5 Marking. Marking shall be in accordance with MIL-PRF-19500.

* 3.6 Electrical performance characteristics. Unless otherwise specified herein, the electrical performance characteristics are as specified in 1.3, 1.4, and table I.

* 3.7 Electrical test requirements. The electrical test requirements shall be as specified in table I.

* 3.8 Workmanship. Semiconductor devices shall be processed in such a manner as to be uniform in quality and shall be free from other defects that will affect life, serviceability, or appearance.

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. Qualification inspection (see 4.2).
- b. Screening (see 4.3).
- c. Conformance inspection (see 4.4).

4.2 Qualification inspection. Qualification inspection shall be in accordance with MIL-PRF-19500.

* 4.2.1 Group E qualification. Group E inspection shall be performed for qualification or re-qualification only. In case qualification was awarded to a prior revision of the associated specification that did not request the performance of table II tests, the tests specified in table II herein shall be performed by the first inspection lot of this revision to maintain qualification.

* 4.3 Screening (JANS, JANTX and JANTXV levels only). Screening shall be in accordance with table IV of MIL-PRF-19500 and as specified herein. The following measurements shall be made in accordance with table I herein. Devices that exceed the limits of table I herein shall not be acceptable.

| Screen (see table IV of MIL-PRF-19500) | Measurement | |
|--|--|---|
| | JANS level | JANTX and JANTXV levels |
| 3c | Thermal impedance (see 4.3.2) | Thermal impedance (see 4.3.2) |
| 9 | I_{CEX1} and h_{FE2} | Not applicable |
| 11 | Subgroup 2 of table I herein; I_{CEX1} and h_{FE2} ; $\Delta I_{CEX1} = 100$ percent of initial value or 100 μA dc, whichever is greater. $\Delta h_{FE2} = \pm 40$ percent of initial value. | I_{CEX1} and h_{FE2} |
| 12 | See 4.3.1 | See 4.3.1 |
| 13 | Subgroups 2 and 3 of table I herein; I_{CEX1} and h_{FE2} ; $\Delta I_{CEX1} = 100$ percent of initial value or 100 μA dc, whichever is greater. $\Delta h_{FE2} = \pm 40$ percent of initial value. | Subgroup 2 of table I herein; I_{CEX1} and h_{FE2} ; $\Delta I_{CEX1} = 100$ percent of initial value or 100 μA dc, whichever is greater. $\Delta h_{FE2} = \pm 40$ percent of initial value. |

(1) Thermal impedance limits ($Z_{\theta JC}$) shall not exceed the thermal impedance curve on figure 3.

* 4.3.1 Power burn-in conditions. Power burn-in conditions are as follows:

$$T_J = +175^\circ C \text{ min, } V_{CE} = 10\text{-}30 \text{ V dc, } T_A = +30 \pm 5^\circ C, P_T = 100 \text{ W min.}$$

* 4.3.2 Thermal impedance ($Z_{\theta JX}$ measurements). The $Z_{\theta JX}$ measurements shall be performed in accordance with method 3131 of MIL-STD-750 using the guidelines in that method for determining I_M , I_H , t_H , t_{SW} , V_H , and t_{MD} (and V_C where appropriate). The $Z_{\theta JX}$ limit used in screen 3c shall comply with the thermal impedance graph on figure 3 (less than or equal to the curve value at the same t_H time) and/or shall be less than the process determined statistical maximum limit as outlined in method 3131.

* 4.4 Conformance inspection. Conformance inspection shall be in accordance with MIL-PRF-19500, and as specified herein.

4.4.1 Group A inspection. Group A inspection shall be conducted in accordance with appendix E; table V of MIL-PRF-19500, and table I herein.

* 4.4.2 Group B inspection. Group B inspection shall be conducted in accordance with the conditions specified for subgroup testing in appendix E; tables VIa (JANS) and VIb (JAN, JANTX, and JANTXV) of MIL-PRF-19500. Electrical measurements (end-points) and delta requirements shall be in accordance with the applicable steps of table III herein.

* 4.4.2.1 Group B inspection, appendix E, table VIa (JANS) of MIL-PRF-19500.

| <u>Subgroup</u> | <u>Method</u> | <u>Conditions</u> |
|-----------------|---------------|--------------------------------------|
| B4 | 1037 | $V_{CB} \geq 10$ V dc, 2,000 cycles. |
| B5 | 2037 | Bond strength, test condition A. |
| B6 | 3131 | See 4.3.2. |

* 4.4.2.2 Group B inspection, appendix E, table VIb (JAN, JANTX, and JANTXV) of MIL-PRF-19500.

| <u>Subgroup</u> | <u>Method</u> | <u>Conditions</u> |
|-----------------|---------------|--------------------------------------|
| B3 | 1037 | $V_{CB} \geq 10$ V dc, 2,000 cycles. |
| B6 | 1032 | $T_A = +200^\circ\text{C}$. |

* 4.4.3 Group C inspection. Group C inspection shall be conducted in accordance with the conditions specified for subgroup testing in appendix E; table VII of MIL-PRF-19500. Electrical measurements (end-points) and delta requirements shall be in accordance with the applicable steps of table III herein.

| <u>Subgroup</u> | <u>Method</u> | <u>Conditions</u> |
|-----------------|---------------|--|
| C2 | 1056 | Test condition B. |
| C2 | 2036 | Test condition A (tension), weight = 4.5 kg, t = 10 seconds. |
| C5 | 3131 | See 4.3.2. |
| C6 | 1037 | $V_{CB} \geq 10$ V dc, 6,000 cycles. |

* 4.4.4 Group E inspection. Group E inspection shall be conducted in accordance with the conditions specified for subgroup testing in table IX of MIL-PRF-19500 and as specified in table II herein. Electrical measurements (end-points) shall be in accordance with the applicable steps of table III herein.

4.5 Method of inspection. Methods of inspection shall be as specified in the appropriate tables and as follows:

4.5.1 Pulse measurements. Conditions for pulse measurement shall be as specified in section 4 of MIL-STD-750.

* TABLE I. Group A inspection.

| Inspection 1/ | MIL-STD-750 | | Symbol | Limits | | Unit |
|-------------------------------------|-------------|--|----------------|--------|--------|-------|
| | Method | Conditions | | Min | Max | |
| <u>Subgroup 1</u> | | | | | | |
| Visual and mechanical examination | 2071 | | | | | |
| <u>Subgroup 2</u> | | | | | | |
| Thermal impedance | 3131 | See 4.3.2 | | | | |
| Collector-emitter breakdown voltage | 3011 | Bias condition D; $I_C = 100$ mA dc; pulsed (see 4.5.1) | $V_{CEO(sus)}$ | 100 | | V dc |
| Collector-emitter cutoff current | 3036 | Bias condition D; $V_{CE} = 50$ V dc | I_{CEO} | | 1.0 | mA dc |
| Emitter-base cutoff current | 3061 | Bias condition D; $V_{EB} = 5$ V dc | I_{EBO} | | 2.0 | mA dc |
| Collector-emitter cutoff current | 3041 | Bias condition A; $V_{BE} = 1.5$ V dc; $V_{CE} = 100$ V dc | I_{CEX1} | | 0.5 | mA dc |
| Base-emitter saturated voltage | 3066 | Test condition A; $I_C = 12$ A dc; $I_B = 120$ mA dc; pulsed (see 4.5.1) | $V_{BE(sat)}$ | | 4.0 | V dc |
| Collector-emitter saturated voltage | 3071 | $I_C = 12$ A dc; $I_B = 120$ mA dc; pulsed (see 4.5.1) | $V_{CE(sat)}$ | | 3.0 | V dc |
| Forward-current transfer ratio | 3076 | $V_{CE} = 3.0$ V dc; $I_C = 6.0$ A dc; pulsed (see 4.5.1) | h_{FE1} | 1,000 | 18,000 | |
| Forward-current transfer ratio | 3076 | $V_{CE} = 3.0$ V dc; $I_C = 12$ A dc; pulsed (see 4.5.1) | h_{FE2} | 150 | | |
| <u>Subgroup 3</u> | | | | | | |
| High-temperature operation: | | $T_A = +150^\circ\text{C}$ | | | | |
| Collector to emitter cutoff current | 3041 | Bias condition C; $V_{CE} = 100$ V dc; $V_{BE} = 1.5$ V dc | I_{CEX2} | | 5.0 | mA dc |
| Low-temperature operation: | | $T_A = -55^\circ\text{C}$ | | | | |
| Forward-current transfer ratio | 3076 | $V_{CE} = 3.0$ V dc; $I_C = 6.0$ A dc; pulsed (see 4.5.1) | h_{FE3} | 300 | | |

See footnote at end of table.

* TABLE I. Group A inspection - Continued.

| Inspection <u>1/</u> | MIL-STD-750 | | Symbol | Limits | | Unit |
|--|-------------|--|------------|--------|-----|---------|
| | Method | Conditions | | Min | Max | |
| <u>Subgroup 4</u> | | | | | | |
| Switching parameters | | | | | | |
| Turn-on | | See figure 4 | t_{on} | | 2.0 | μs |
| Turn-off | | See figure 4 | t_{off} | | 10 | μs |
| Magnitude of small-signal short-circuit forward-current transfer ratio | 3306 | $V_{CE} = 3.0 \text{ V dc}; I_C = 5.0 \text{ A dc}; f = 1 \text{ MHz}$ | $ h_{fe} $ | 10 | 250 | |
| <u>Subgroup 5</u> | | | | | | |
| Safe operating area (continuous dc) | 3051 | $T_C = +25^\circ C; t \geq 1 \text{ s}; 1 \text{ cycle};$ (see figure 5) | | | | |
| Test 1 | | $V_{CE} = 8.3 \text{ V dc}; I_C = 12.0 \text{ A dc}$ | | | | |
| Test 2 | | $V_{CE} = 30 \text{ V dc}; I_C = 3.3 \text{ A dc}$ | | | | |
| Test 3 | | $V_{CE} = 90 \text{ V dc}; I_C = 150 \text{ mA dc}$ | | | | |
| Safe operating area (clamped inductive) | 3053 | Load condition B (clamped inductive load); $T_A = +25^\circ C;$ $t_r + t_f \leq 1.0 \mu s;$ duty cycle ≤ 2 percent; $t_p = 1 \text{ ms};$ (vary to obtain I_C); $R_s = 0.10 \Omega;$ $R_{BB1} = 80 \Omega; V_{BB1} = 16 \text{ V dc};$ $R_{BB2} = 100 \Omega; V_{BB2} = 1.5 \text{ V dc};$ $I_C = 12 \text{ A dc}; V_{CC} = 20 \text{ V dc};$ $R_L \leq 2 \Omega; L = 10 \text{ mH};$ (Stancor C-2688 or equivalent) clamp voltage = $100 +0, -5 \text{ V dc};$ Device fails if clamp voltage not reached. | | | | |
| Electrical measurements | | See table III, steps 1 and 2. | | | | |
| <u>Subgroups 6 and 7</u> | | | | | | |
| Not applicable | | | | | | |

1/ For sampling plan see MIL-PRF 19500.

* TABLE II. Group E inspection (all quality levels) for qualification and requalification only.

| Inspection | MIL-STD-750 | | Qualification conformance inspection |
|-------------------------------|-------------|---|--------------------------------------|
| | Method | Conditions | |
| <u>Subgroup 1</u> | | | 45 devices c = 0 |
| Temperature cycling | 1051 | 500 cycles | |
| Hermetic seal | 1071 | Test conditions G or H | |
| Fine leak | | Test conditions C or D | |
| Gross leak | | | |
| Electrical measurements | | See table III, steps 1 and 2 | |
| <u>Subgroup 2</u> | | | 45 devices c = 0 |
| High temperature reverse bias | 1039 | Condition A; 1,000 hours | |
| Electrical measurements | | See table III, steps 1 and 2 | |
| <u>Subgroup 3</u> | | | 3 devices c = 0 |
| DPA | 2102 | | |
| <u>Subgroup 4</u> | | | Sample size N/A |
| Thermal impedance curves | | Each supplier shall submit their (typical) design maximum thermal impedance curves. In addition, the optimal test conditions and $Z_{\theta JX}$ limit shall be provided to the qualifying activity in the qualification report | |
| <u>Subgroups 5 and 6</u> | | | |
| Not applicable | | | |
| <u>Subgroup 7</u> | | | 45 devices c = 0 |
| Reverse stability | 1033 | Condition A for devices ≥ 400 V, condition B for devices < 400 V. | |

* TABLE III. Group B, C, and E electrical measurements. 1/ 2/ 3/ 4/

| Step | Inspection | MIL-STD-750 | | Symbol | Limit | | Unit |
|------|----------------------------------|-------------|---|-------------------------|--|--------|-------|
| | | Method | Conditions | | Min | Max | |
| 1. | Collector-emitter cutoff current | 3041 | Bias condition C; $V_{CE} = 100 \text{ V dc}$ $V_{BE} = 1.5 \text{ V dc}$ | I_{CEX1} | | 0.5 | mA dc |
| 2. | Forward-current transfer ratio | 3076 | $V_{CE} = 3.0 \text{ V dc}$; $I_C = 6.0 \text{ A dc}$; pulsed (see 4.5.1) | h_{FE1} | 1,000 | 18,000 | |
| 3. | Collector-emitter cutoff current | 3041 | Bias condition C; $V_{CE} = 100 \text{ V dc}$ $V_{BE} = 1.5 \text{ V dc}$ | ΔI_{CEX1} 5/ | 100 percent of initial value or 100 $\mu\text{A dc}$; whichever is greater. | | |
| 4. | Forward-current transfer ratio | 3076 | $V_{CE} = 3.0 \text{ V dc}$; $I_C = 6.0 \text{ A dc}$; pulsed (see 4.5.1) | Δh_{FE1} 5/ | ± 40 percent change from initial value. | | |

1/ The electrical measurements for appendix E, table VIa (JANS) of MIL-PRF-19500 are as follows:

- Subgroup 3, see table II herein, steps 1 and 2.
- Subgroup 4, see table II herein, steps 3 and 4.
- Subgroup 5, see table II herein, steps 3 and 4.

2/ The electrical measurements for appendix E; table VIb (JAN, JANTX and JANTXV) of MIL-PRF-19500 are as follows:

- Subgroup 2, see table II herein, steps 1 and 2.
- Subgroup 3, see table II herein, steps 1 and 2.
- Subgroup 6, see table II herein, steps 1 and 2.

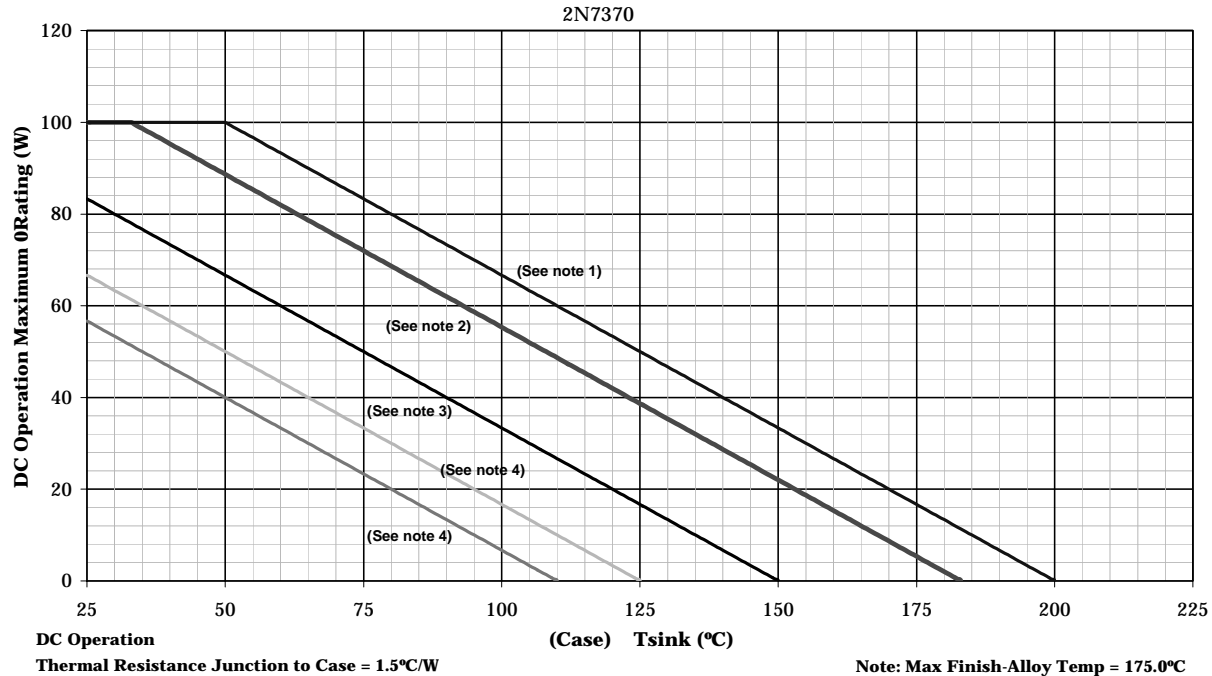
3/ The electrical measurements for appendix E; table VII of MIL-PRF-19500 are as follows:

- Subgroup 2, see table II herein, steps 1 and 2.
- Subgroup 3, see table II herein, steps 1 and 2.
- Subgroup 6, see table II herein, steps 1 and 2.

4/ The electrical measurements for appendix E; table IX of MIL-PRF-19500 are: Subgroups 1 and 2, see table II herein, steps 1 and 2.

5/ Devices which exceed the group A limits for this test shall not be shippable but are not considered failures for the test.

Temperature-Power derating curve

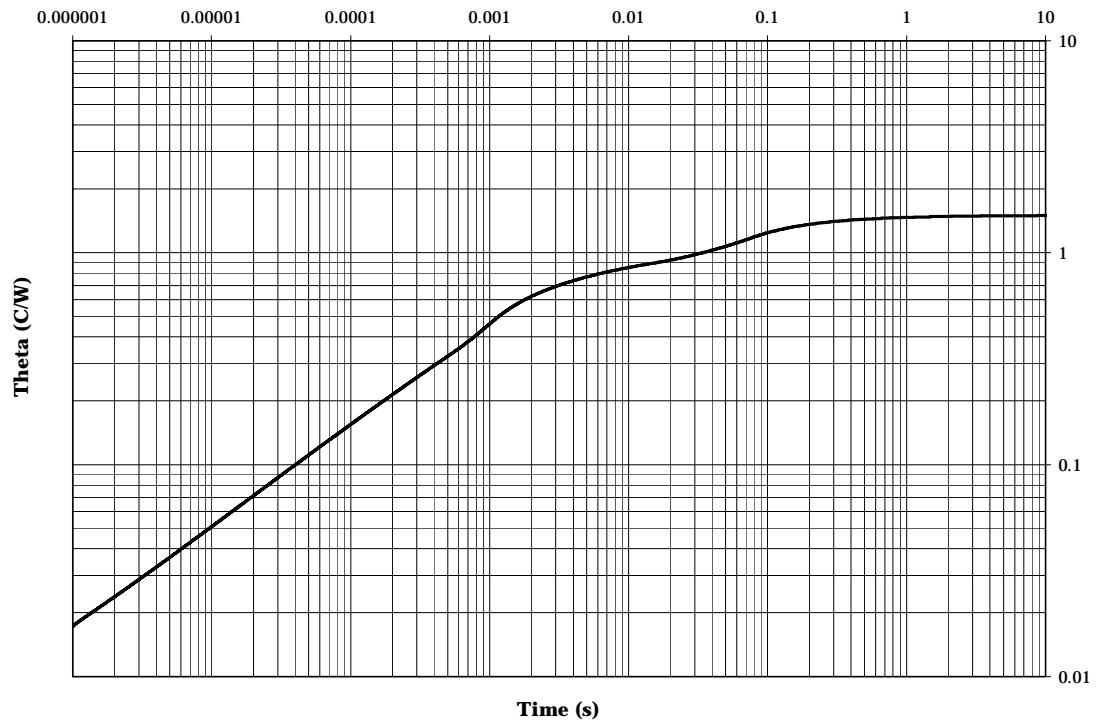


NOTES:

1. Maximum theoretical derate design curve. This is the true inverse of the worst case thermal resistance value. All devices are capable of operating at $\leq T_J$ specified on this curve. Any parallel line to this curve will intersect the appropriate power for the desired maximum T_J allowed.
2. Derate design curve constrained by the maximum junction temperatures and power rating specified. (See 1.3.)
3. Derate design curve chosen at $T_J \leq +150^{\circ}\text{C}$, where the maximum temperature of electrical test is performed.
4. Derate design curve chosen at $T_J \leq +125^{\circ}\text{C}$, and $+110^{\circ}\text{C}$ to show power rating where most users want to limit T_J in their application.

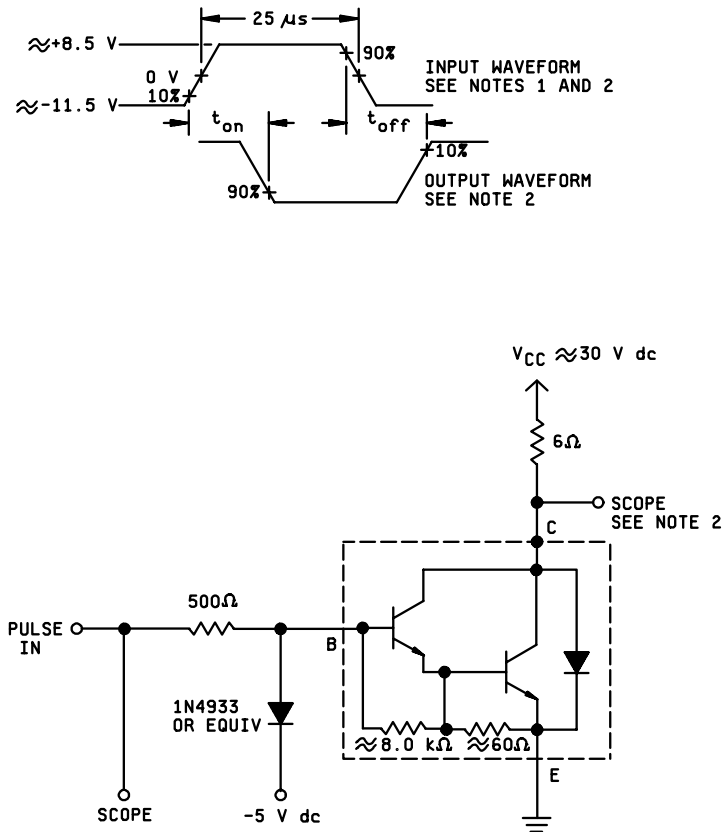
* FIGURE 2. Temperature-power derating graph.

Maximum Thermal Impedance



$T_C = +25^{\circ}\text{C}$. Thermal impedance = 1.5°C/W .

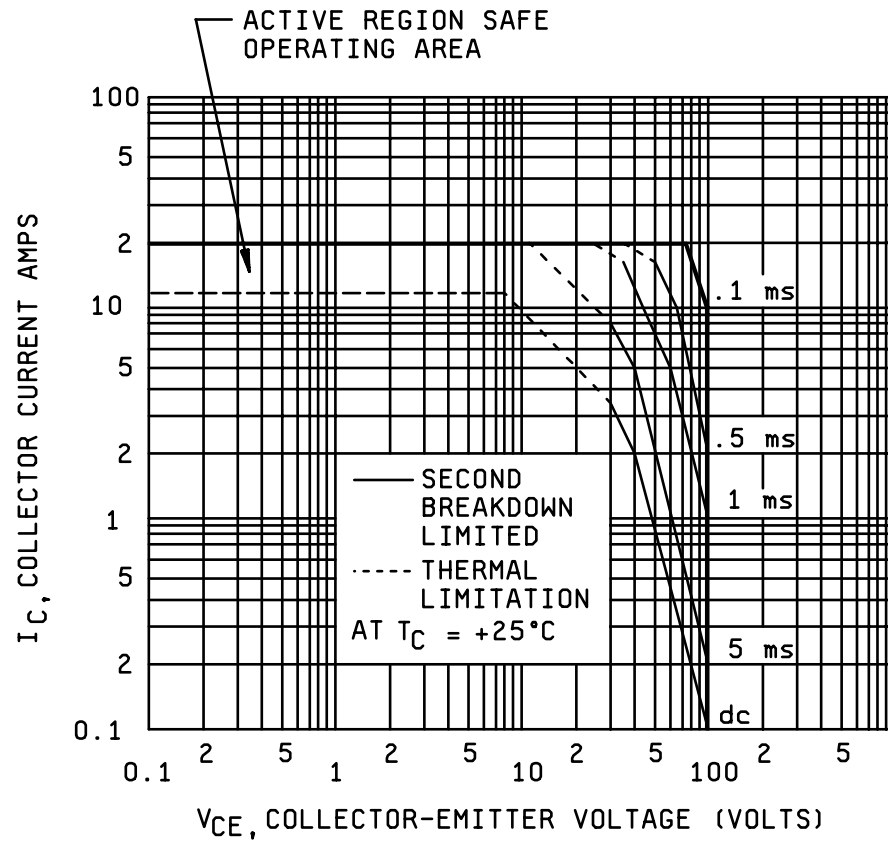
* FIGURE 3. Transient thermal impedance graph.



NOTES:

1. The input waveform is supplied by a pulse generator with the following characteristics:
 $t_r \leq 20 \text{ ns}$, $t_f \leq 20 \text{ ns}$, $Z_{OUT} = 50 \Omega$, $PW = 25 \mu\text{s}$, duty cycle ≤ 2 percent.
2. Output waveforms are monitored on an oscilloscope with the following characteristics:
 $t_r \leq 20 \text{ ns}$, $Z_{IN} \geq 20 \text{ k}\Omega$, $C_{IN} \leq 11.5 \text{ pF}$.
3. Resistors shall be noninductive types.
4. The dc power supplies may require additional by-passing in order to minimize ringing.

* FIGURE 4. Pulse response test circuit.



* FIGURE 5. Safe operating area.

5. PACKAGING

* 5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the Military Service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

* 6.1 Intended use. The notes specified in MIL-PRF-19500 are applicable to this specification.

* 6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Packaging requirements (see 5.1).
- c. Lead finish (see 3.4.1).
- d. Product assurance level and type designator.

6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Manufacturers List (QML No. 19500) whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from Defense Supply Center, Columbus, ATTN: DSCC/VQE, P.O. Box 3990, Columbus, OH 43216-5000 or e-mail vqe.chief@dla.mil.

6.4 Interchangeability information. MIL-PRF-19500/624 is a T0-254 package version of MIL-PRF-19500/502, which is a T0-3 package version. The military 2N7370 contains the same die as the military 2N6059. The MIL-PRF-19500/624 is preferred over the MIL-PRF-19500/502 whenever interchangeability is not a problem. For new design use 2N7370. The 2N6059 is inactive for new design.

* 6.5 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:

Army - CR
Navy - EC
Air Force - 11
NASA - NA
DLA - CC

Preparing activity:

DLA - CC

(Project 5961-2804)

Review activities:

Army - AR, MI, SM
Navy - AS
Air Force - 19, 99

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